

**Standard:**

Kindergarten 3.1.5 Describe changes that are part of common life cycles.  
(Ex. seed to flower - fruit to seed)

**Purpose:**

- The students will identify life cycles.

**Materials needed:**

- Music is optional (nature)

**Instructions:**

- The students will find their own personal space.
- The teacher will discuss the life cycle of a seed to full bloom.
- The students will lie on the floor in a ball which would represent a seed.
- The students will grow as the teacher discusses the life cycle of the seed.
- After all of the students are flowers, they will move their bodies as if they're blowing in the wind.

**Adaptations:**

- None

**References:**

- None

**Standard:**

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|-----------------------|---|
| 3 <sup>rd</sup> Grade | 3.1.1 To identify the basic structures or parts of plants or animals. |
| 4 <sup>th</sup> Grade | 3.1.1 To identify the basic structures or parts of plants or animals. |

**Purpose:**

- The students will reinforce the parts of a plant by listing them in a rhythm game.

**Materials needed:**

- None

**Instructions:**

- Teacher sets a pattern and the class joins in.
- Example: Jump-jump-clap-clap-snap-snap...keep repeating the procedure.
- The teacher says "Plant Parts". The first student will (jump-jump-clap-clap and snap) and say "root."
- Students will continue to list things under the specific topic.
- NOTE: ALL ANSWERS MUST BE SAID ON THE (SNAP-SNAP).
- Once a student repeats or cannot come up with an answer, they must sit down and are out of the game.

**Adaptations:**

- Community Workers
- Presidents
- Food Groups
- States
- Capitals

**References:**

- None

**Standard:**4<sup>th</sup> Grade

3.1.2 Describe how component parts make up the human body system.

**Purpose:**

- The students will identify body parts.

**Materials needed:**

- None

**Instructions:**

- Students partner up.
- Leader states, “Cranium-to-Cranium”.
- Partners match cranium-to-cranium (head-to-head).
- The leader continues calling commands.
- Students continue matching body parts.
- When the leader says “Bone-to-Bone” the students switch partners.
- Repeat new series of commands until, “Bone-to-Bone” is said again.

**Simple Commands**

Toe-to-Toe

Leg-to-Leg

Finger-to-Finger

**Complex Commands**

Tarsal-to-Tarsal

Femur-to-Femur

Phalanges-to-Phalanges

**Adaptations:**

- None

**References:**

- None

**Standard:**

3<sup>rd</sup> Grade 2.1.1 Changes in Matter.

**Purpose:**

- The students will learn how heat will cause a change in matter.

**Materials needed:**

- Salt-water taffy

**Instructions:**

- Students will each be given a piece of candy while standing in line.
- Teacher will explain what “isometric” contractions are. (pushing hands, palm side down together, back and forth)
- Students will then count how many times they perform isometric contraction in order for their candy to begin taking another form.
- This is how igneous rock was formed.
- The students may eat their salt-water taffy.

**Adaptations:**

- Play-doh, tootsie rolls, caramel, bubble gum, anything that can change shape

**References:**

- None

**Standard:**

3 <sup>rd</sup> Grade	1.1.2 Explore characteristics of scientific ways of thinking.
4 <sup>th</sup> Grade	1.1.2 Explore characteristics of scientific ways of thinking.
5 <sup>th</sup> Grade	1.1.2 Explore characteristics of scientific ways of thinking.

**Purpose:**

- The student will use scientific strategies to solve a problem.

**Materials needed:**

- None

**Instructions:**

- Divide class into groups of eight.
- Have the students stand in a circle facing each other.
- The students will join right hands with any person in the circle.
- Their left hand can be joined with anyone else in the group.
- The students must untangle the knot without letting go of their hands.

**Adaptations:**

- None

**References:**

- None

**Standard:**

5<sup>th</sup> Grade      3.1.4 To invent a classification system.

**Purpose:**

- The students will discover different ways to classify themselves into meaningful groups.

**Materials needed:**

- None

**Instructions:**

- Students are asked to classify themselves into groups of common similarities. (Blond hair, freckles, red shirts, girls wearing glasses, etc.)
- Once all groups are formed, the other groups try to determine what the classification of the group.
- CHALLENGE: Organize your classification group without talking.

**Adaptations:**

- None

**References:**

- None

**Standard:**

- 4<sup>th</sup> Grade 2.4.2 Describe various types of circuit networks.
- 5<sup>th</sup> Grade 2.4.3 Explore production, consumption, transformation, and conservation of electrical mechanical, heat, light, and chemical energy.

**Purpose:**

- The students will understand circuits.

**Materials needed:**

- Hula hoops

**Instructions:**

- Children stand in a circle holding hands.
- A hoop is placed between two children.
- The hoop has to pass around the ring without breaking contact.
- At this time, you can incorporate the discussion of closed circuits.
- Talk about what would happen if there were missing links.
- Continue with all aspects of circuits.
- Continue passing the hula-hoop, but create a missing link, by having two students letting go of hands.

**Adaptations:**

- None

**References:**

- Games for Kids

**Standard:**

- 3<sup>rd</sup> Grade 5.1.1 & 5.1.2 Analyze various implications/effects of scientific advancement within the environment and society.
- 4<sup>th</sup> Grade 5.1.1 & 5.1.2 Analyze various implications/effects of scientific advancement within the environment and society.
- 5<sup>th</sup> Grade 5.1.1 & 5.1.2 Analyze various implications/effects of scientific advancement within the environment and society.

**Purpose:**

- The students will create a new invention that will be very beneficial in the future.

**Materials needed:**

- Various objects: a hula-hoop, a jump rope, a basketball, a yard stick, etc.
- NOTE: One item per group.

**Instructions:**

- After discussing inventions and the impact they have had on our society students will make an invention for the future.
- Divide students into small groups of three to four.
- Each group is to invent something for the future using only the given prop and each other.
- All members of the group must actively be part of the invention.
- Allow the students only three to five minutes to prepare a name for the device, how it works, and why it will be valuable.
- Share and demonstrate the inventions.

**Adaptations:**

- Don't use any props, just "human inventions".
- Do the same activity with a large group.

**References:**

- None



**Standard:**

3 <sup>rd</sup> Grade	1.1.1 Use investigations in science to serve different purposes.
4 <sup>th</sup> Grade	1.1.1 Use investigations in science to serve different purposes.
5 <sup>th</sup> Grade	1.1.1 Use investigations in science to serve different purposes.

**Purpose:**

- The students will describe how scientific investigations create new knowledge.

**Materials needed:**

- Chairs
- Scissors

**Instructions:**

- Organize yourself and the students on chairs in a large circle.
- The teacher will hold a pair of scissors.
- When the activity is about to begin, stare at the scissors as if you are studying them hard, to distract and confuse students.
- Then pass the scissors to the student seated in the next chair.
- As you pass the scissors, simply say the word crossed or uncrossed.
- Because the students saw you intently studying the scissors, they will assume that the words crossed and uncrossed have something to do with the scissors.
- The word refers to the position of your legs when you passed the scissors.
- After you pass the scissors, tell that student to study the scissors and say the correct word while passing them safely to the student in the next chair.
- Give no other clues about the activity; the students must work it out!
- As each student passes the scissors, tell the student whether he or she got it right.
- See how many rounds it takes before each student has figured it out.
- If most of the students have not figured out the game by the end of a few rounds, you can start to make it more obvious by changing the position of your legs just before passing the scissors.
- Instruct students not to say anything as they figure out what is going on.
- To keep students from revealing the secret of the game, you might let them tell some of their peers whether they are correct as the scissors are passed.

**Adaptations:**

- None

**References:**

- None

**Standard:**

- 3<sup>rd</sup> Grade 2.3.1 Investigate simple machines.
- 4<sup>th</sup> Grade 2.3.3 Investigate simple machines.
- 5<sup>th</sup> Grade 2.3.3 Investigate simple machines.

**Purpose:**

- The students will identify simple machines being demonstrated by their classmates.

**Materials needed:**

- None

**Instructions:**

- Put students into groups of three to six.
- Using every member, each group must create a simple machine.
- Each member is a different part.
- The groups take turns displaying their machine. The other groups try to guess what it is.
- No talking or noises are allowed.  
(Ex. lever, pulley, wheel, axle, inclined plane, wedge, or screw)

**Adaptations:**

- None

**References:**

- None

**Standard:**3<sup>rd</sup> Grade

2.4.1 Investigate different sources of energy.

**Purpose:**

- The students will identify renewable and nonrenewable energy sources.

**Materials needed:**

- None

**Instructions:**

- Group students in a circle.
- Have students take turns giving an example of a renewable or non-renewable resource.
- The students will clap their hands if the example is a renewable resource.
- The students will run in place if it is a non-renewable resource.
- Continue activity until all students have given an example.

**Adaptations:**

- None

**References:**

- None

**Standard:**

4<sup>th</sup> Grade 3.2.1 Describe adaptations animals make to survive in an environment.

**Purpose:**

- The students will observe how animals survive in a given environment.

**Materials needed:**

- None

**Instructions:**

- This is a game where a herd of deer seeks food, water, and shelter to survive.
- The group should be split into two even groups and they should be at either end of the playing space facing opposite directions. One group will be the environment and the other will be the deer.
- The environment and the deer will pick one of three signs; WATER (hand over mouth), FOOD (hands on stomach) or SHELTER (hands in a peak over head). On the go signal from the leader, both groups will turn around and make their symbol.
- The deer will run towards the environment that is the same as their sign. If they catch an environment, both players become deer. If the deer cannot find the appropriate symbol, they will die and become part of the environment.
- Fluctuations in the deer population due to different causes can be shown in different rounds.

**Adaptations:**

- None

**References:**

- [www.gameskidsplay.net](http://www.gameskidsplay.net)

**Standard:**

- 4<sup>th</sup> Grade 3.3.2 To model the flow of energy in food webs and pyramids.  
5<sup>th</sup> Grade 3.3.2 To model the flow of energy in food webs and pyramids.

**Purpose:**

- The students will analyze how animals are linked to one another and the environment.

**Materials needed:**

- None

**Instructions:**

- Students are to form a line (chain) of three somewhere in the classroom.
- The teacher announces a specific animal like, “hawk”.
- The first student in line quickly thinks of something that is consumed by the hawk and acts it out - snake.
- The second person in line guesses snake and acts out something that is consumed by a snake - toad.
- The third person in line guesses toad and acts out something consumed by a toad - grasshopper.
- Students then switch places and play again with a new starting animal/thing.

**Adaptations:**

- You may make longer chains for a challenge

**References:**

- <http://users.ren.com/jkimball.ma.ultranet/BiologyPages/F/FoodChains.html>

**Standard:**

- 3<sup>rd</sup> Grade 4.2.1 Describe how the Earth is one of several planets that orbits the sun (revolution and rotation).
- 4<sup>th</sup> Grade 4.2.1 Describe how the Earth is one of several planets that orbits the sun (revolution and rotation).

**Purpose:**

- The students will model the rotation and revolution of the planets in the solar system.

**Materials needed:**

- Different sized balls to represent the different sizes of the planets

**Instructions:**

- Assign planets to the students prior to the activity.
- As the teacher announces the planets, the students will select the correct sized ball to represent their planet.
- The sun will take its position first, followed by the nine planets.
- As the planets are being announced, the astronauts in the audience will spell out the name of the planet while the ball is being bounced to each letter.
- After each planet has been introduced, the audience will share facts relating to each planet.
- At the conclusion of the introduction ceremony, the planets will perform the Rotation and Revolution Recital (turning and revolving around the sun).

**Adaptations:**

- The teacher can hand out the correct sized balls instead of students selecting them.

**References:**

- None

**Standard:**

4<sup>th</sup> Grade 3.1.2 Describe how component parts make up the human body system.

**Purpose:**

- The students will reinforce the bones of the human skeleton.

**Materials needed:**

- None

**Instructions:**

- All students stand up.
- Simply follow the same procedure as “Simon Says”.
- Skeleton says “Touch your clavicle”...students touch their clavicle.
- Skeleton says “Shake your patella”...students shake their knees.
- “Open your mandible”...Skeleton did not say, so students who did not follow the the skeleton’s instructions are out and sit down and are out.
- Speed up as their skill improves.
- NOTE: Include physical activity - stretch your quadriceps by reaching for the floor.

**Adaptations:**

- Muscles
- Simple body parts like arm, leg, hip

**References:**

- None

**Standard:**

- 3<sup>rd</sup> Grade 3.1.1 Identify the basic structures and functions of plants.  
4<sup>th</sup> Grade 3.1.1 Identify the basic structures and functions of plants.

**Purpose:**

- The students will identify the basic structures and functions of plants.

**Materials needed:**

- None

**Instructions:**

- The students will be divided into groups of three or four.
- The teacher will assign each group a plant part (root, stem, leaves, or flower).
- Each group will be required to come up with a cheer and actions to represent their plant part and one of its functions.
- Conclude the activity with a Plant Pep Rally where all groups present their cheers.

**Adaptations:**

- None

**References:**

- None